REMARKS

Applicant respectfully requests reconsideration of the present application in view of the reasons that follow. Claims 16-31 are now pending in this application. Claims 20-23 have been withdrawn from consideration.

Rejection under 35 U.S.C. § 103

Claims 16-19 and 24-31 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over JP 56-093316 to Koji (hereafter "Koji") in view of U.S. Patent No. 4,468,054 to Orth (hereafter "Orth") and WO 03/081113 to Müller *et al.* This rejection is respectfully traversed.

Applicant notes that U.S. Patent No. 7,475,916 is in the patent family of WO 03/081113 and appears to be an English language equivalent of WO 03/081113. Therefore, any further references to WO 03/081113 will instead be to U.S. Patent No. 7,475,916 (hereafter "Müller").

Koji discloses a pipe connection for an automotive air conditioner in which an evaporator 4 is located in a case 5 with an opening 27a, as shown in Figures 4 and 5 of Koji. A copy of an English translation of Koji is enclosed for reference. Intake and exhaust pipes 9, 10 are connected to a connecting plate 18, which is located within the opening 27a of the case, as shown in Figures 4-6 of Koji. Refrigerant pipes 15, 16 pass through a pipe plate 23 and are inserted into openings 20 of the connecting plate 18, as shown in Figures 4-6 of Koji. The pipe plate 23 is attached to the connected plate 18 by a bolt 24, as shown in Figures 5 and 6 of Koji.

The Office identifies the pipe plate 23 as a positioning element on page 3 of the Office Action.

Koji does not disclose or suggest a fixing device for a motor vehicle air-conditioning system including an evaporator, an expansion valve, and a plurality of lines, comprising a housing configured to house at least the evaporator of the motor vehicle air-conditioning system in the housing, wherein the housing includes projections formed in a single piece with

the housing, and a positioning element configured to position the lines relative to each other, wherein the positioning element has a first set of two slots configured to receive the lines and a second set of slots, wherein the positioning element is a sheet-metal punched part, wherein the projections are arranged and shaped in accordance with the second set of slots of the positioning element such that the positioning element can be positioned on the housing in a rotationally secure manner, wherein the positioning element is configured to be fitted and fixed with the expansion valve in at least a twist-proof manner on the housing, as recited in claim 16. Claims 17-19 and 24-31 depend from claim 16.

In particular, Koji does not disclose or suggest a housing including projections formed in a single piece with the housing, as recited in claim 16. Nor does Koji disclose or suggest a positioning element having a first set of two slots configured to receive lines and a second set of slots, wherein the projections are arranged and shaped in accordance with the second set of slots of the positioning element such that the positioning element can be positioned on the housing in a rotationally secure manner, wherein the positioning element is configured to be fitted and fixed with the expansion valve in at least a twist-proof manner on the housing, as recited in claim 16.

Orth discloses a flange mounted thermostatic expansion valve with tubes 66 inserted into a valve body, as shown in Figure 1 of Orth. The Office argues on pages 3-4 of the Office Action that Orth discloses a positioning element 78 and that it would have been obvious to modify the device of Koji by the teachings of Orth.

However, Orth does not remedy the deficiencies of Koji because Orth also does not disclose or suggest a positioning element having a first set of two slots configured to receive lines and a second set of slots, wherein the projections are arranged and shaped in accordance with the second set of slots of the positioning element such that the positioning element can be positioned on the housing in a rotationally secure manner, wherein the positioning element is configured to be fitted and fixed with the expansion valve in at least a twist-proof manner on the housing, as recited in claim 16. As shown in the drawing of Orth, the flange plate 78 of Orth includes only one set of notches 80, 82, not a first set of two slots and a second set of slots, as recited in claim 16.

Nor does Orth disclose or suggest a housing including projections formed in a single piece with the housing, as recited in claim 16. As a result, a combination of Koji and Orth does not disclose or suggest all of the features of claim 16.

Müller discloses a coupling device 100 for coupling of a liquid line 10 to a fluidic system 20. See abstract of Müller. Müller discloses a fluidic block 45 as a clamping device and a holding plate 25 on top of a chip body 24. See Müller at col. 8, lines 30-33, 45-48. Müller discloses that the fluidic block 45 and the holding plate 25 are connected via a bayonet connection and the holding plate 25 includes anchor pins 25.1 that project through lateral openings 45.2 of the fluidic block 45. See Müller at col. 9, lines 62-65, and col. 10, lines 23-25.

The Office argues on pages 4-5 of the Office Action that it would have been obvious to combine Koji, Orth, and Müller. In particular, the Office argues on pages 4-5 of the Office Action it would have been obvious to modify Koji and Orth by the teachings of Müller to (1) ensure proper alignment of lines within a positioning element and a housing and (2) to prevent relative rotation between the positioning element and the housing prior to fixedly fastening the positioning element onto the housing. Applicant respectfully disagrees that one of ordinary skill in the would have made such a modification.

First, the device of Koji already provides structure to ensure proper alignment of lines within the pipe plate 23 and the case 5 of Koji. As shown in Figures 5 and 6 of Koji, the refrigerant lines 15, 16 are inserted into openings of the pipe plate 23, through the pipe plate 23, and into openings 20 of the connecting plate 18 so that ends of the refrigerant lines 15, 16 are inserted into the connecting plate 18, as shown in Figure 5 of Koji. As a result, the refrigerant lines 15, 16 themselves serve as alignment structures to ensure proper alignment of the refrigerant lines 15, 16, the pipe plate 23, the connecting plate 18, and intake and exhaust pipes 9, 10 which are inserted into an opposite side of the connecting plate, as shown in Figure 5 of Koji. As shown in Figure 5 of Koji, the refrigerant lines 15, 16 are inserted into the pipe plate 23 and the ends of the refrigerant lines 15, 16 are subsequently inserted into the openings 20 of the connecting plate 18, with the bolt 24 finally securing the pipe plate 23 to the connecting plate 18.

One of ordinary skill in the art would have recognized that the refrigerant lines 15, 16 of Koji provide an alignment structure and that there would have been no need to add additional structure to provide the same function and purpose, which would in turn increase the complexity and manufacturing cost of the device of Koji.

Further, Müller does not disclose or suggest a structure which would prevent relative rotation between the positioning element and the housing prior to fixedly fastening the positioning element onto the housing, as argued by the Office. Instead, Müller discloses a bayonet connection 42 which includes a bayonet ring 42.1 having anchoring ramps 42.2 that engage with anchor pins 25.1 which project from a holding plate 25. See Müller at col. 10, lines 3-11. Müller teaches that the connection between the holding plate 25 and the bayonet ring 42.1, via the anchor pins 25.1 and the anchoring ramps 42.2, causes a fluidic block 45 to be pressed against a fluidic chip 24 when the holding plate 25 and the bayonet ring 42.1 are locked together. See Müller at col. 10, lines 12-14.

In other words, the anchor pins 25.1 of Müller, which the Office identifies as projections of a housing on pages 4-5 of the Office Action, are part of the fastening device of Müller, not a device which provides alignment prior to fastening, as argued by the Office. As discussed above and shown in Figure 7 of Müller, the anchor pins 25.1 are part of a fastening device which fastens the bayonet ring 42.1 to the holding plate 25, with the fluidic block 45 in between. Thus, any alignment provided by the pins 25.1 of Müller is provided during fastening of the bayonet ring 42.1, the fluidic block 45, and the holding plate 25 of Müller together, not prior to fastening, as argued by the Office. Therefore, one of ordinary skill in the art would not have modified the device of Koji and Orth by the teachings of Müller, nor would one of ordinary skill in the art have made such a modification for the reasons argued by the Office.

Nor would one of ordinary skill in the art have looked to the teachings of Müller when considering a modification to the device of Koji or Orth. Müller is non-analogous art. A reference is analogous art if: (1) the art is from the same field of endeavor, or (2) if not within the same field of endeavor, the art is reasonably pertinent to the particular problem with which the inventor is involved. *In re Klein*, slip opinion, page 7 (Fed. Cir. 2011), *citing*

In re Bigio, 381 F.3d 1320, 1325 (Fed. Cir. 2004). A copy of *In re Klein* is included with this reply.

Here, the device of Müller is not within Applicant's field of endeavor, which regards motor vehicle air-conditioning systems. Instead, the device of Müller is coupling liquid lines to fluidic microsystems, which are used to handle suspended biological or synthetic samples. See Müller at col. 1, lines 6-24.

Nor is the device of Müller reasonably pertinent to the particular problem with which the inventor is involved. As discussed on page 1, line 9, to page 2, line 17, of Applicant's specification, the particular problem with which Applicant is involved is providing a rotationally secure fixture between a positioning element and a housing. In contrast, the device of Müller relates to fluidic microsystems and the need to provide fluid-tight connections, not a rotationally secure fixture between a positioning element and a housing. See Müller at col. 1, lines 6-24, and col. 3, lines 14-28. In addition, the anchor pins 25.1 of Müller, which the Office cites as projections of a housing, are actually fastening devices which fasten a bayonet ring 42.1 to a holding plate 25, not projections to provide a rotationally secure fixture between a positioning element and a housing.

Applicant further notes that in *In re Klein* the Board of Patent Appeals and Interferences defined the problem with which the inventor was involved by looking to the specification of the application. *See In re Klein* at page 5.

In addition, one of ordinary skill in the art would have had no reason to look to the teachings of Müller without the guidance of the disclosure of Applicant's application, which describes the problem addressed by Applicant and the need for an improved fixing device with a positioning element that can be fitted and fixed with the expansion valve in at least a twist-proof manner on a housing. The disclosure of Applicant's application would not have been available to one of ordinary skill in the art at the time Applicant's invention was made. In the absence of the guidance provided by the disclosure of Applicant's application, one of ordinary skill in the art would not have looked to the teachings of Müller or have found it

obvious to combine features of Müller with the device of Koji and Orth without knowledge of the problem that Applicant was addressing.

For at least these reasons, one of ordinary skill in the art would not have made the combination argued by the Office and modified Koji and Orth by the teachings of Müller. Reconsideration and withdrawal of this rejection is respectfully requested. Thus, the claims are allowable over Koji, Orth, and Müller.

Conclusion

Applicant submits that the present application is now in condition for allowance. Favorable reconsideration of the application is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date September 30, 2011

By _____

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United States Court of Appeals for the Federal Circuit

(Serial No. 10/200,747)

IN RE ARNOLD G. KLEIN

2010-1411

Appeal from the United States Patent and Trademark Office, Board of Patent Appeals and Interferences.

Decided: June 6, 2011

LOUIS W. TOMPROS, Wilmer, Cutler, Pickering, Hale and Dorr, LLP, of Boston, Massachusetts, argued for appellant. With him on the brief were LARISSA B. PARK and KATHERINE B. DIRKS.

CHRISTINA J. HIEBER, Associate Solicitor, United States Patent and Trademark Office, of Alexandria, Virginia, argued for appellee. With her on the brief were RAYMOND T. CHEN, Solicitor, and ROBERT J. MCMANUS, Associate Solicitor.

Before NEWMAN, SCHALL, and LINN, *Circuit Judges*.

SCHALL, *Circuit Judge*.

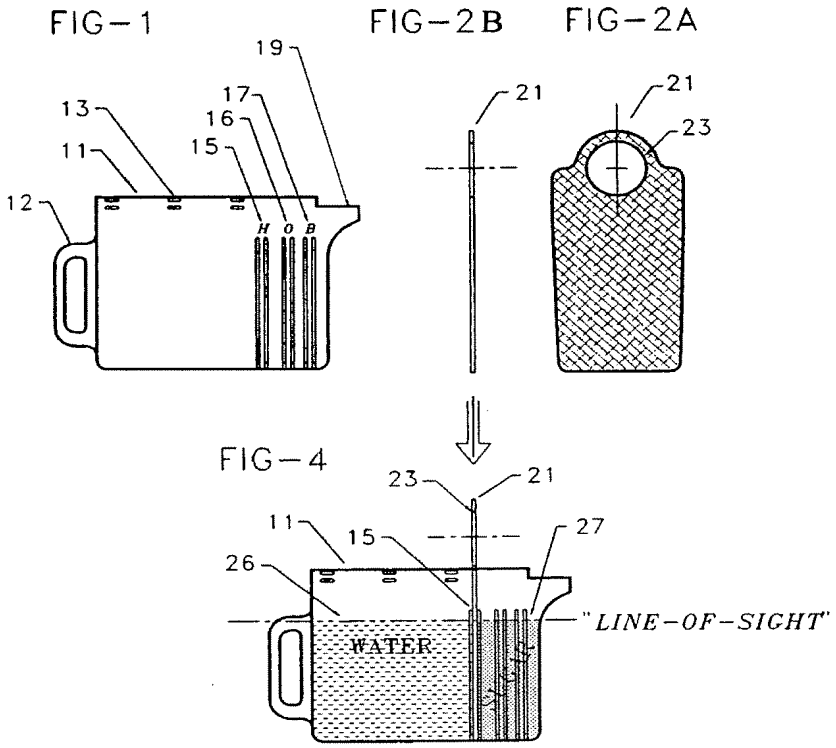
Arnold G. Klein appeals the final decision of the Board of Patent Appeals and Interferences ("Board") affirming the rejection of certain claims of U.S. Patent Application No. 10/200,747 ("'747 application") as obvious under 35 U.S.C. § 103. *Ex Parte Arnold Gregory Klein*, No. 2009-005721 (B.P.A.I. Mar. 29, 2010) ("*Decision*"). Because the Board's finding that five references at issue are analogous art is not supported by substantial evidence, the obviousness rejections cannot be sustained and, accordingly, we reverse.

BACKGROUND

I.

Mr. Klein filed the '747 application, titled "Convenience Nectar Mixing and Storage Devices," on July 24, 2002. The '747 application concerns a mixing device for use in preparation of sugar-water nectar for certain bird and butterfly feeders. J.A. 23. According to the specification, the device has a series of rails that, when engaged with a divider, allow for the creation of two compartments for separating sugar and water within the device. J.A. 27, 101. The rails are located to divide the device into proportionate volumes of one part sugar to four parts water (to make hummingbird nectar), one part sugar to six parts water (to make oriole nectar), and one part sugar to nine parts water (to make butterfly nectar). *Id.* Once the respective compartments have been filled to the same level with sugar and water, the divider is removed, allowing the sugar and water to mix and be stirred. J.A. 25, 27. The specification does not suggest that the sugar to water ratios are novel, instead disclosing in the "Background of the Invention" that these ratios are "currently recognized as being proportionally equivalent in sugar content as the birds, and butterflies [sic] natural nectar food sources." J.A. 24.

Figures 1, 2A-2B, and 4 of the '747 application, shown below, illustrate device 11, divider 21, and rails 15, 16, and 17:



J.A. 112.

The sole independent claim at issue, claim 21, recites:

> 21. A convenience nectar mixing device for use in preparation of sugar-water nectar for feeding hummingbirds, orioles or butterflies, said device comprising:
>
> a container that is adapted to receive water,
>
> receiving means fixed to said container, and

> a divider movably held by said receiving means for forming a compartment within said container, wherein said compartment has a volume that is proportionately less than a volume of said container, by a ratio established for the formulation of sugar-water nectar for hummingbirds, orioles or butterflies, wherein said compartment is adapted to receive sugar, and wherein removal of said divider from said receiving means allows mixing of said sugar and water to occur to provide said sugar-water nectar.

J.A. 403. The remaining claims at issue, claims 22-25, 29, and 30, each depend from claim 21. J.A. 403-04.

In a final rejection dated September 24, 2007, the examiner made five separate rejections under 35 U.S.C. § 103(a): (1) a rejection of claims 21, 22, and 30 over U.S. Patent No. 580,899 ("Roberts") in view of the prior art sugar to water ratios discussed in the Klein specification; (2) a rejection of claims 21, 22, and 30 over U.S. Patent No. 1,523,136 ("O'Connor") in view of the prior art sugar to water ratios discussed in the Klein specification; (3) a rejection of claims 21, 22, and 30 over U.S. Patent No. 2,985,333 ("Kirkman") in view of the prior art sugar to water ratios discussed in the Klein specification; (4) a rejection of claims 21-25 and 29 over U.S. Patent No. 2,787,268 ("Greenspan") in view of the prior art sugar to water ratios discussed in the Klein specification; and (5) a rejection of claims 21 and 29 over U.S. Patent No. 3,221,917 ("De Santo") in view of the prior art sugar to water ratios discussed in the Klein specification. Mr. Klein appealed the final rejection to the Board.

II.

The Board affirmed each of the five obviousness rejections. *See Decision* at 12-13. The Board described Rob-

erts, O'Connor, Kirkman, Greenspan, and De Santo as each "teach[ing] a device with a container having a movable divider held in place by a 'receiving means,' such as slots, grooves, or threads, which could be used to divide ingredients in specific ratios." *Decision* at 6-7. In addition, the Board pointed to the Klein specification's own statement that the sugar-water ratios were known. *Id.* at 5-6. According to the Board, "[t]hose of skill in the art would have had reason to use the known ratios with the available containers having movable dividers to achieve the correct proportions of water and sugar and to mix the ingredients for different nectars." *Id.* at 7. The Board rejected Mr. Klein's argument that the five cited references are non-analogous art. In doing so, the Board found that the prior art was properly relied upon by the examiner because it is reasonably pertinent to the problem Mr. Klein addresses, which the Board found to be "making a nectar feeder with a movable divider to prepare different ratios of sugar and water for different animals." *Id.* at 8-9.

Mr. Klein appealed. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(4) and 35 U.S.C. § 141.

DISCUSSION

Under the Patent Act, "[a] patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." 35 U.S.C. § 103(a). Although the ultimate determination of obviousness under § 103 is a question of law, it is based on several underlying factual findings, including (1) the scope and content of the prior art; (2) the level of ordinary skill in the pertinent art; (3) the differences between the

claimed invention and the prior art; and (4) evidence of secondary factors, such as commercial success, long-felt need, and the failure of others. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966).

We review the Board's ultimate determination of obviousness *de novo* and the Board's factual findings underlying that determination for substantial evidence. *In re Kotzab*, 217 F.3d 1365, 1369 (Fed. Cir. 2000). The Board's determination that a prior art reference is analogous art presents an issue of fact, reviewed for substantial evidence. *In re Icon Health & Fitness, Inc.*, 496 F.3d 1374, 1378 (Fed. Cir. 2007).

I.

On appeal, Mr. Klein argues that the Board erred when it summarily concluded that the five cited references are "reasonably pertinent to the problem addressed by Klein." *Decision* at 8-9. Although the Board made a finding of fact as to the particular problem that Mr. Klein was addressing, specifically, "making a nectar feeder with a movable divider to prepare different ratios of sugar and water for different animals," *Decision* at 8, Mr. Klein contends that the Board failed to make any finding that any of the cited references are "reasonably pertinent" to that problem. Further, Mr. Klein argues, the Board identified no evidence that suggests that an inventor seeking to solve the problem Mr. Klein was addressing, which Mr. Klein characterizes as a "multiple ratio mixing problem," would look to any of the references to address the problem of preparing different ratios. *See* Reply Br. 10-15.

The government responds that the Board correctly found that the prior art references were directed toward the same problem Mr. Klein sought to solve with his device, which the government characterizes as a "com-

partment separation problem." Appellee's Br. 26. Because "[t]he problem of keeping things separated is not unique to nectar mixing and storage devices," and "nothing about the prior art containers with adjustable, removable dividers is unique to their particular applications," the government contends that "[o]ne confronted with Klein's desire to keep two ingredients separated and also allow for them to be mixed together would have readily consulted these references to discover the broad solution therein employed, and applied it to his particular application with no more than ordinary skill required." Appellee's Br. 25-27.

II.

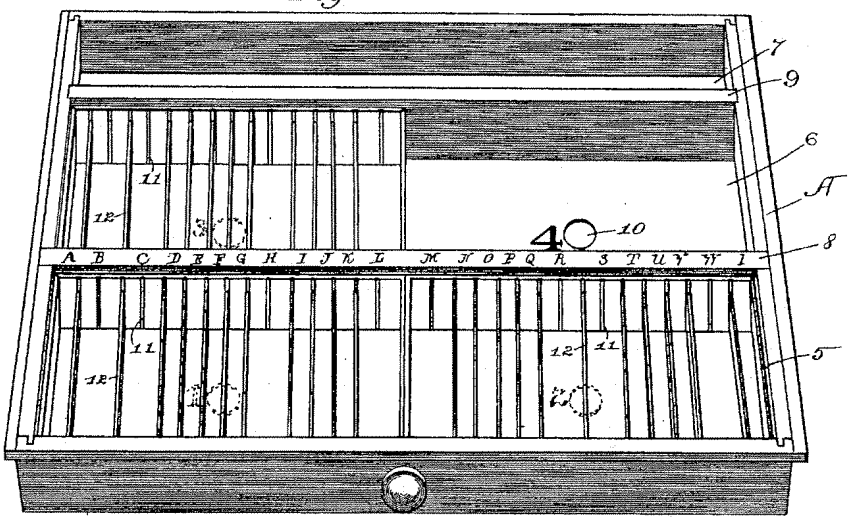
A reference qualifies as prior art for an obviousness determination under § 103 only when it is analogous to the claimed invention. *Innovention Toys, LLC, v. MGA Entertainment, Inc.*, No. 2010-1290, slip op. at 12 (Fed. Cir. Mar. 21, 2011); *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004); *In re Clay*, 966 F.2d 656, 658 (Fed. Cir. 1992). "Two separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved." *Bigio*, at 1325. Here, the Board focused exclusively on the "reasonably pertinent to the particular problem" test. "A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." *Clay*, 966 F.2d at 659. "If a reference disclosure has the same purpose as the claimed invention, the reference relates to the same

problem, and that fact supports use of that reference in an obviousness rejection." *Id.*

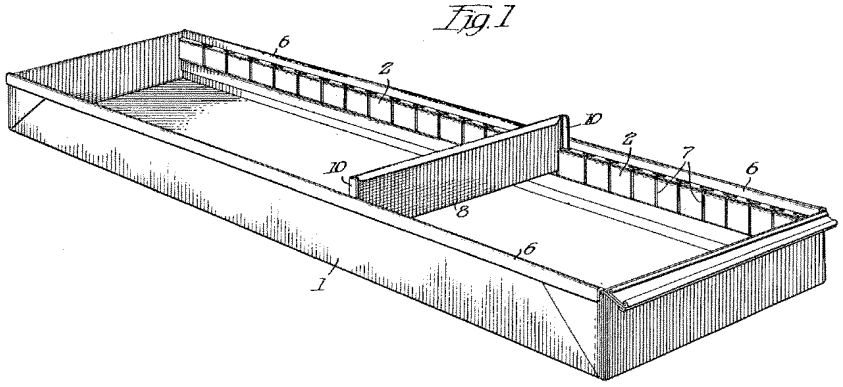
Mr. Klein does not challenge the Board's factual finding of the problem he was addressing, namely "making a nectar feeder with a movable divider to prepare different ratios of sugar and water for different animals." Mr. Klein argues, however, that Roberts, O'Connor, Kirkman, Greenspan, and De Santo are each directed to a wholly different problem than the one he faced. We examine each reference in turn.

Roberts is directed to an "Apparatus for Keeping Accounts." The apparatus of Roberts includes receptacles, such as receptacles 1 and 2 (shown in dotted lines in Figure 1 below), having a "series of vertical channels 11, adapted to receive removable partitions 12, by means of which the receptacle[s] may be subdivided into compartments." Roberts col.1 ll.41-46, col.2 ll.53-56. According to Roberts, the receptacles are "designed to receive . . . statement-cards," and each includes a hand-hole 10 to assist in removing the receptacle from a drawer. Roberts col.1 ll.34-39, col.2 ll.53-56. Figure 1 of Roberts is shown below:

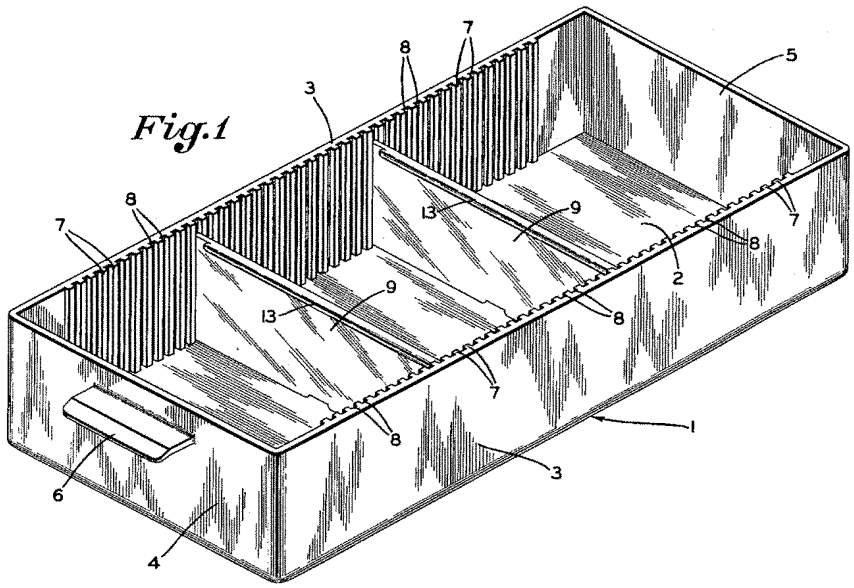
Fig. 1.



O'Connor is directed to a tool tray having dividers that are "readily movable" and that is "adapted to contain comparatively small articles, for example, drills, reamers, bits, etc., or hardware supplies such as bolts, nuts and the like." O'Connor col.1 ll.8-27. As shown in Figure 1 of O'Connor, reproduced below, divider 8 is not positioned flush with the bottom of the tray:



Kirkman is directed to a "Plastic Cabinet Drawer with Removable Partitions." Kirkman explains that it "relates to drawers for relatively small cabinets for containing various types of small articles, and more particularly to a drawer of this type provided with removable partitions or dividers, for dividing the drawer into two or more compartments of varying size, with means for frictionally holding the partitions in adjusted position [sic] within the drawer." Kirkman col.1 ll.15-21. As shown in Figure 1 of Kirkman below, the lower edge of partition 9 has a small notch:



Mr. Klein argues that, consistent with the Board's own express findings, Roberts, O'Connor, and Kirkman are each directed to a container designed to *separate* its contents, as opposed to one designed to facilitate the *mixing* of those contents. *See Decision* at 5 ("Roberts teaches a container, in particular a drawer for keeping accounts, which has removable partitions for forming compartments *for the purpose of keeping statement and account cards separated.*") (emphasis added) (citing Roberts col. 1 ll.7-13); *id.* ("O'Connor teaches a container, in particular a tool tray, with removable dividers that may be placed in the tray for forming compartments *for the purpose of keeping tools and other construction items (e.g., bolts, nuts) separated.*") (emphasis added) (citing O'Connor col.1 ll.8-20); *id.* ("Kirkman teaches a container, in particular a cabinet drawer, with removable dividers that may be placed in the drawer for forming compartments *for the purpose of keeping small household articles (e.g.,*

hardware, cosmetics, and paperclips) separated.") (emphasis added) (citing Kirkman col.1 ll.20-30). Mr. Klein also argues that, in view of (1) the hand-hole 10 of Roberts, (2) how divider 8 of O'Connor is positioned to not be flush with the bottom of the tray, and (3) the notch in the lower edge of partition 9 of Kirkman, none of these three references is "adapted to receive water," as is required by claim 21 of the '747 application.

We agree with Mr. Klein that the Board's conclusory finding that Roberts, O'Connor, and Kirkman are analogous is not supported by substantial evidence. The purpose of each of Roberts, O'Connor, or Kirkman is to separate solid objects. An inventor considering the problem of "making a nectar feeder with a movable divider to prepare different ratios of sugar and water for different animals," would not have been motivated to consider any of these references when making his invention, particularly since none of these three references shows a partitioned container that is adapted to receive water or contain it long enough to be able to prepare different ratios in the different compartments. *See Clay*, 966 F.2d at 659 ("If [a reference] is directed to a different purpose, the inventor would accordingly have had less motivation or occasion to consider it.").[1]

Turning to the remaining two references, Greenspan is directed to a "Blood Plasma Bottle" having a compartment for dried plasma and a compartment for water,

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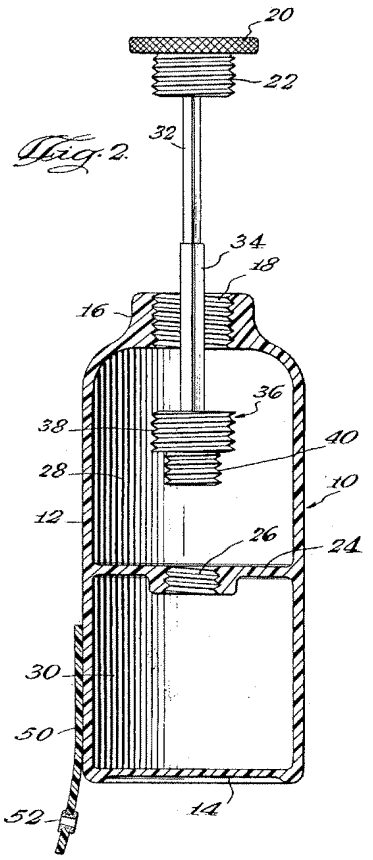
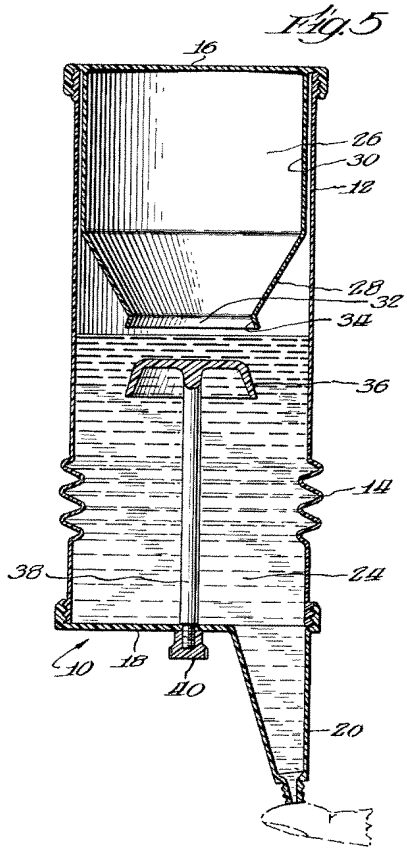
[1] We agree with Mr. Klein that, to the extent the government attempts to do so, it cannot redefine the problem Mr. Klein was addressing as a "compartment separation problem" on appeal. *See Sec. & Exch. Comm'n v. Chenery Corp.*, 318 U.S. 80, 94 (1943) ("[A]n administrative order cannot be upheld unless the grounds upon which the agency acted in exercising its powers were those upon which its action can be sustained.").

where the compartments are separated by a "wall which is normally plugged during transportation of the bottle." Greenspan col.2 ll.12-17. When the plasma is going to be used, the plasma compartment is unplugged, the plug becomes the cap for the bottle, and the bottle is shaken to dissolve the plasma. *Id.* col.2 ll.17-23. As shown in Figure 2 of Greenspan, below, the wall 24 cannot be moved to adjust the relative sizes of the lower (plasma) compartment 30 or upper (water) compartment 28:



See Greenspan col.2 ll.37-39.

De Santo's "Fluid Container" has two compartments designed to hold two different types of fluid, which can be "rapidly and thoroughly mixed together at the desired time without opening the container externally" to make, for example, hair rinses. De Santo col.1 ll.8-17, 23-28. Compartments 24 and 26 are separated by partition 28, which is "provided with a central opening 32 defining an annular valve seat 34 which is engageable with a valve member 36 to open and close the partition as desired." *Id.* col.2 ll.44-48, 55-58. As shown below in Figure 5, partition 28 is in a fixed location.



Greenspan and De Santo are not analogous, Mr. Klein argues, because they do not address multiple ratios or have a "movable divider." We agree. While Greenspan and De Santo are each directed to containers that facilitate the mixing of two separated substances together, an inventor considering the problem of "making a nectar feeder with *a movable divider to prepare different ratios* of sugar and water for different animals," would not have been motivated to consider either of these references since neither of the references shows a movable divider or the

ability to prepare different ratios.[2] *Decision* at 8 (emphasis added). In the *Decision*, the Board did not set forth any reasoning in support of its finding that Greenspan and De Santo are analogous, and thus, this finding is also not supported by substantial evidence.

Mr. Klein also challenges the Board's decision on two additional grounds. Mr. Klein's second and third arguments on appeal are that the Board erred by finding the rejected claims obvious, and that the Board improperly failed to consider Mr. Klein's evidence of long-felt need to rebut the *prima facie* case of obviousness. However, since we have determined that the Board's finding that the five references at issue are analogous art is not supported by substantial evidence, the references do not qualify as prior art under 35 U.S.C. § 103. *See Clay*, 966 F.2d at 658. Therefore, the rejections under 35 U.S.C. § 103 cannot be sustained, and we need not reach Mr. Klein's second or third argument. *See id.* at 660.

CONCLUSION

For the foregoing reasons, we reverse the decision of the Board. The case is remanded to the Board for further proceedings consistent with this opinion.

REVERSED AND REMANDED

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[2] As noted above, we agree with Mr. Klein that the government cannot now redefine the problem Mr. Klein was addressing as a "compartment separation problem."

(19) Japan Patent Office (JP)
(12) Official Gazette of Unexamined Utility Model Applications (U)

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(54) Title of Utility Model: Pipe Connecting Structure For Automotive Air Conditioner

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(57) Claims

1. A pipe connecting plate for an automotive air conditioner, wherein the front ends of intake and exhaust pipes from an evaporator arranged on the passenger cabin side are inserted into and secured on one side of pipe insertion holes formed in a connecting plate, wherein the pipe insertion holes on the other side of the connecting plate are inserted into and secured to connecting plate holes formed in a firewall dividing the passenger cabin from an engine chamber so as to open into the engine chamber, wherein two refrigerant pipes from another air conditioning device arranged on the engine chamber side are secured to a pipe plate immediately in front of the front ends of the refrigerant pipes, and wherein the pipe plate is secured to the connecting plate so that the front ends of the refrigerant pipes are inserted into the other side of the pipe insertion holes formed in the connecting plate, thereby connecting the intake and exhaust pipes from the evaporator to the refrigerant pipes from the other air conditioning device.

2. The pipe connecting plate for an automotive air conditioner in claim 1, wherein the pipe plate is secured to the connecting plate via a single pipe plate securing bolt.

3. The pipe connecting plate for an automotive air conditioner in claim 1 or claim 2, wherein the connecting plate is secured directly to the firewall via a connecting plate securing bolt.

4. The pipe connecting plate for an automotive air conditioner in claim 1 or claim 2, wherein the connecting plate is interposed between an upper portion and a lower portion of a cooling case housing the evaporator, and is secured to the firewall via a cooling case securing bolt for securing the cooling case to the firewall.

5. The pipe connecting plate for an automotive air conditioner in claim 4, wherein supports are formed in the connecting plate extending around the pipe insertion holes in the connecting plate, and wherein the supports are inserted into the two connecting plate holes formed in the firewall.

6. The pipe connecting plate for an automotive air conditioner in any one of claims 1 through 5, wherein seals attached beforehand to the connecting plate holes in the connecting plate are pushed into the firewall from the passenger cabin side to create a seal.

Brief Explanation of the Figures

FIG 1 is a cross-sectional view of a pipe connecting structure of the prior art; FIG 2 is a cross-sectional view of the first working example of the present utility model; FIG 3 and FIG 4 are views of the second working example of the present utility model; FIG 3 is a cross-sectional view prior to connection; FIG 4 is an exploded perspective view of the working example showing how the connecting plate is attached to the cooling case; FIG 5 through FIG 9 are views of the third working example of the present utility model; FIG 5 is a cross-sectional view; FIG 6 is a perspective view prior to connection omitting both the firewall and the seal; FIG 7 is a perspective view of the connecting plate used in the working example; FIG 8 is a perspective view of the seal used in the same working example; and FIG 9 is a front view of the firewall used in the same working example.

1 ... Firewall; 2 ... Passenger Cabin; 3 ... Engine Compartment; 4 ... Evaporator; 5 ... Cooling Case; 5a ... Upper Cooling Case Portion; 5b ... Lower Cooling Case Portion; 9, 10 ... Intake and Exhaust Pipes; 12 ... Seal; 15, 16 ... Refrigerant Pipes; 18 ... Connecting Plate; 19, 19' ... Connecting Plate Holes; 20 ... Pipe Insertion Hole; 22 ... Connecting Plate

Securing Bolt; 23 ... Pipe Plate; 24 ... Pipe Plate Securing Bolt; 29 ... Cooling Case Securing Bolt; 30 ... Support

FIG 1

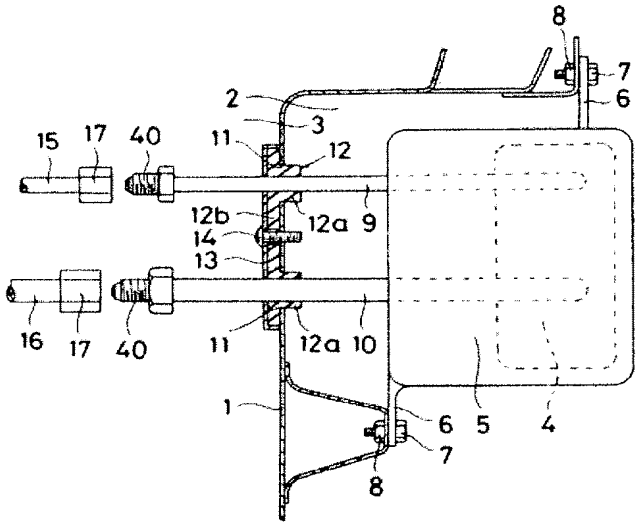
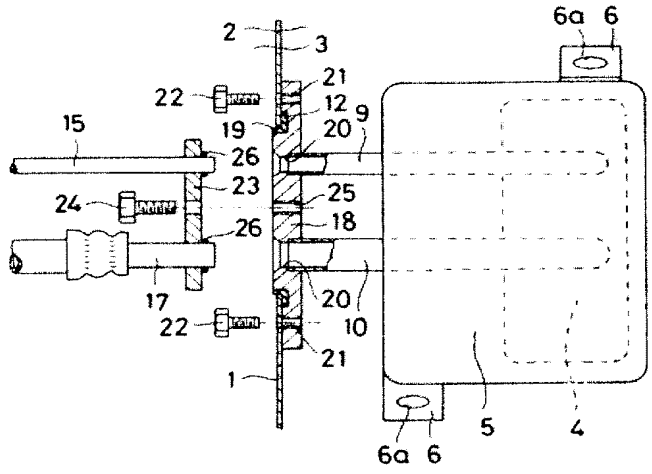

8
7
6
2
3
15
17
40
11
12
12b
12a
9
14
13
16
17
40
11
12a
10
1
6
5
4
7
8

FIG 2


6a
6
2
3
21
22
12
9
19
20
15
26
23
25
24
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26
17
20
22
10
21
1
5
4
6a
6

FIG 3

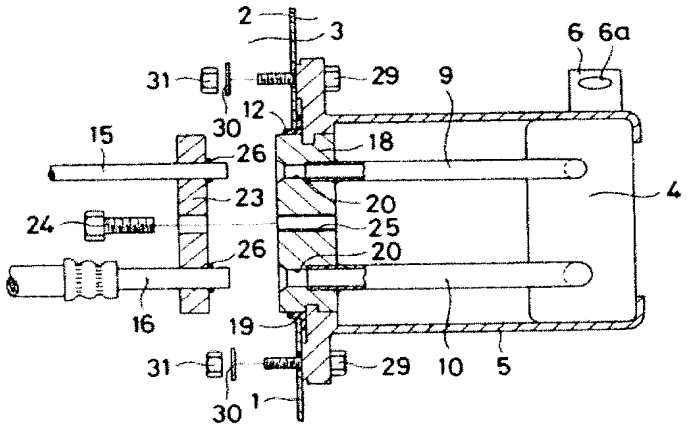

2
3
6
6a
31
29
9
12
30
15
26
18
4
23
20
24
25
26
20
16
19
31
29
10
5
30
1

FIG 4

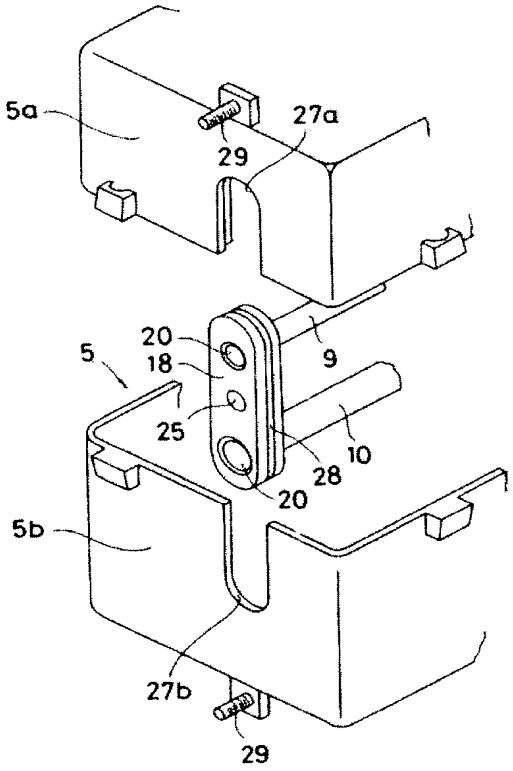
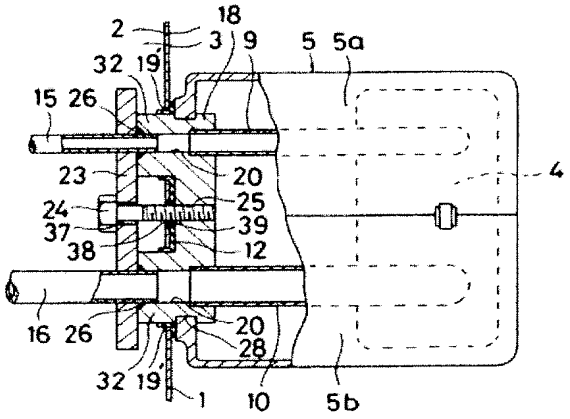

5a
27a
29
20
18
9
5
25
10
28
20
5b
27b
29

FIG 5


2
18
3
9
5
5a
32
19
15
26
4
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37
39
38
12
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26
20
28
32
19
1
10
5b

FIG 6

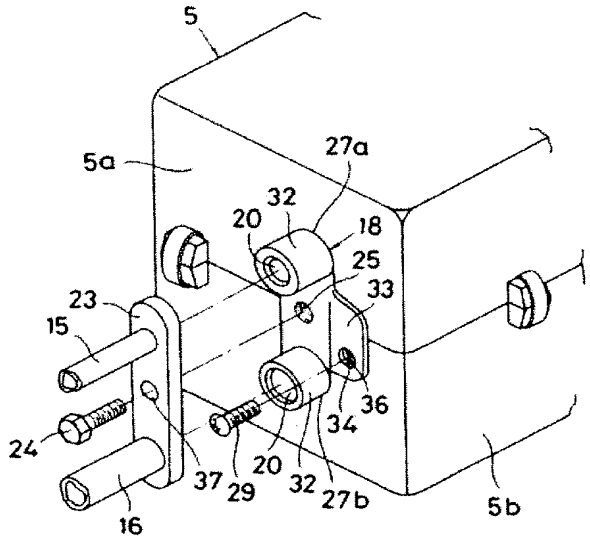
5
5a
27a
32
20
18
25
33
23
15
36
34
24
37
29
20
32
27b
5b
16

FIG 7

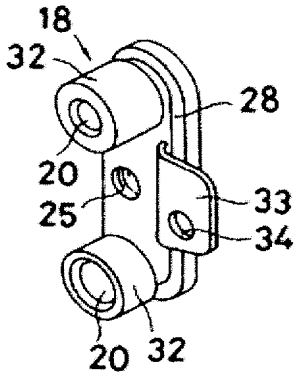

FIG 8

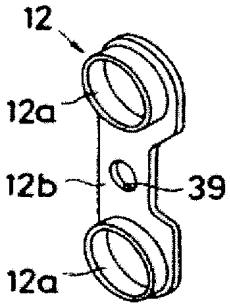

FIG 9